

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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DATE: JAN 31 1979

SUBJECT: Technical Analysis for PSD - ARCO/SOHIO, Prudhoe Bay

FROM: Robert G. Courson, Acting Director,  
Surveillance & Analysis Division

TO: Mike Johnston, Chief, New Source Section

Attached is the technical analysis for BACT and ambient air quality impacts for the addition of eleven gas turbines at the Prudhoe Bay Oil Field operated by ARCO and Sohio. As with previous reports of this nature, we have written this technical analysis in a form that can be used directly as part of your preliminary determination for PSD. Assuming that no significant technical issues are raised during the public comment period, the report could also serve as the support document for the final determination.

The issues related to this determination which could raise questions during the public comment period are itemized below.

1. The NO<sub>x</sub> emission limitation recommended in our analysis is different from that of the proposed NSPS (150 ppm vs 75 ppm). However, our understanding is that the NSPS for gas turbines when promulgated (hopefully within the next few months) will have a 150 ppm standard for gas turbines used in oil production and transportation.
2. The current PSD application covers the first in a series of planned expansions at Prudhoe Bay. Ambient and meteorological monitoring are currently underway at Prudhoe Bay in preparation for future PSD applications.
3. As you know we have been unable to get any headquarters guidance on how to determine whether or not an isolated significant source of hydrocarbons would cause an oxidant violation. The conclusions in the analysis that oxidant standards would not be violated is weakly based and would be difficult to defend if challenged.
4. The air quality analysis employs a "non guideline" air quality model, which we recommended be allowed. The CAA states that if this is the case, there must be an opportunity for public hearing. We would suggest that the comment period provides this opportunity, but we should point out in the notice that comments are especially encouraged on this issue.

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